

CLAIMS

1. Multichamber dividing element (1) for transport containers (2) consisting of several sheets (3) stacked horizontally or vertically, wherein adjacent sheets are connected to each other via common contact surfaces (4) at defined intervals, characterized in that the sheets (3) are made of flexible material, and in that the common contact surfaces (4) of two given, directly connected sheets (3) are arranged offset in the sheet plane vis-à-vis the contact surfaces (4) of one of these sheets (3) with a respective next sheet (3) (if present), with the result that the dividing element (1) can be erected, suspended or stretched such that it has flexible chambers (5) when erected, suspended or stretched.
2. Dividing element according to claim 1, characterized in that the common contact surfaces are substantially continuous contact strips which are arranged parallel at defined intervals and extend substantially over one dimension of the sheet surface.
3. Dividing element according to claim 2, characterized in that the contact strips of one contact strip plane between two given, directly connected sheets are arranged offset in the sheet plane across the longitudinal extension of the contact strips vis-à-vis the contact strips of a contact strip plane of one of these sheets with a respective next sheet (if present).
4. Dividing element according to claim 3, characterized in that the contact strips of two adjacent contact strip planes are arranged offset by half the distance between the contact strips of one plane.
5. Dividing element according to one of claims 1 to 4, characterized in that the sheets of flexible material are connected to one another via common contact surfaces by gluing, sewing, welding or attaching profiles.
6. Dividing element according to one of claims 1 to 5, characterized in that at least some of the sheets are releasably connected to one another to form common contact surfaces by double-sided adhesive tape, Velcro fastening, buttons, pushbuttons or hooks and eyes.
7. Dividing element according to one of claims 1 to 6, characterized in that the flexible material includes flexible plastic and elastic materials, in particular elastic plastic, wherein materials that do not become electrostatically charged are particularly preferred.
8. Dividing element according to one of claims 1 to 7, characterized in that the flexible material includes foils, nonwovens, laminates, coated woven fabrics, woven fabrics and interlaid scrim,

preferably industrial-grade textiles whose textile meshes are arranged slidable in and out of one another.

- 5 9. Dividing element according to one of claims 1 to 8, characterized in that the dividing element is watertight or liquid-resistant.
- 10 10. Dividing element according to one of claims 1 to 9, characterized in that the dividing element can be repeatedly erected, suspended or stretched and folded up again and is continually recyclable.
- 11 11. Dividing element according to one of claims 1 to 10, characterized in that the chambers of the dividing elements which lie between two given sheets are substantially the same size, wherein it is preferable for all the chambers of the dividing element to be substantially the same size.
- 15 12. Dividing element according to one of claims 1 to 11, characterized in that the chambers are variable in shape, wherein the chambers are preferably circular to elliptical or rhomboidal to rectangular.
- 20 13. Dividing element according to one of claims 1 to 12, characterized in that the dividing element can be erected or suspended in a transport container, or stretched in the latter, wherein the dividing element can preferably be permanently fixed by gluing or tacking, via nails, screws or rivets and/or releasably fixed via double-sided adhesive tape, Velcro fastening, buttons, pushbuttons or hooks and eyes.
- 25 14. Dividing element according to claim 13, characterized in that the hook side or the loop side of a Velcro fastening is provided sectionwise on an outer sheet of the dividing element, wherein the sections are preferably arranged substantially central relative to two adjacent contact surfaces which the outer sheet has with its respective adjacent sheet.
- 30 15. Dividing element according to one of claims 1 to 14, characterized in that the dividing element can be erected, suspended or stretched in a corresponding transport frame or transport container, wherein the interior of the transport frame or transport container is divided into several chambers by the dividing element.
- 35 16. Dividing element according to claim 15, characterized in that if the interior of the transport container or frame has a substantially rectangular starting surface measuring X by Y, and has an internal dimension Z substantially perpendicular to this surface, the width of the sheets of the dividing element is substantially less than or equal to Z, and the dividing element when

erected, suspended or stretched extends perpendicular to the sheet surface over a surface that corresponds substantially to the surface X by Y or is slightly smaller than same.

- 5 17. Dividing element according to claim 16, characterized in that X is approximately $1/5$ to $1/3$ shorter than Y and the length of the sheets of the pushed-together or slackened dividing element is less than Y, and in that the width of the sheets is preferably less than X.
- 10 18. Dividing element according to one of claims 1 to 17, characterized in that reinforcements are provided in at least one dimension in the sheet plane, particularly preferably reinforcements are provided in two dimensions, wherein fibre materials and/or profiles of plastic or other at least semi-rigid materials are provided worked into the sheets or attached to the sheets as reinforcements.
- 15 19. Process for the production of a dividing element according to one of claims 1 to 18, characterized in that firstly two sheets of flexible material are connected to each other via common contact surfaces at a large number of points distributed over the surface of the sheets by gluing, sewing, welding or attaching profiles, and any number of further sheets are subsequently stacked areally onto these sheets, wherein each further sheet is connected to the sheet onto which it is stacked via common contact surfaces at a large number of points distributed over the surface of the sheets by gluing, sewing, welding or attaching profiles.

20
20. Process according to claim 19, characterized in that it comprises the following steps:

 - 25 a) pointwise application of adhesive at defined intervals to the top of a first sheet of flexible material,
 - b) laying of a second sheet, dimensioned corresponding to a first sheet, onto the top of a first sheet, preferably with simultaneous pressing of this second sheet onto a first sheet,
 - 30 c) pointwise application of adhesive at defined intervals to the top of the second sheet, wherein the adhesive dots are applied offset vis-à-vis the adhesive dots on the first sheet,
 - d) laying of a third sheet, dimensioned corresponding to the previous sheets, onto the top of the second sheet, preferably with simultaneous pressing of this third sheet onto this second sheet and if required
 - 35 e) pointwise application of adhesive to the top of the third sheet at defined intervals, wherein the adhesive dots are applied offset vis-à-vis the adhesive dots on the second sheet and

- f) stacking of any number of further sheets, the adhesive dots of which are offset vis-à-vis the adhesive dots of the respective previous sheet, and laying of a last sheet onto the last but one sheet provided with adhesive dots.

- 5 21. Process according to claim 19, characterized in that it comprises the following steps:
- a) introduction of a first sheet of flexible material,
 - b) laying of a second sheet, dimensioned corresponding to a first sheet, onto the top of a first sheet,
 - c) pointwise welding or sewing of a first to a second sheet at defined intervals,
 - 10 d) laying of a third sheet, dimensioned corresponding to the previous sheets, onto the top of a second sheet from step c),
 - e) pointwise welding or sewing of a second sheet to a third sheet at defined intervals, wherein the welds or seams are offset vis-à-vis the welds or seams from step c),
 - 15 wherein any number of layers can be welded or sewn together in this way by repeating steps b) to e) after step e) as often as required, and a third sheet from step e) corresponds to a first sheet in step b).
22. Process according to one of claims 19 to 21, characterized in that the contact surfaces of an nth sheet are arranged like the contact surfaces of a previous sheet.
- 20 23. Process according to one of claims 19 to 22, characterized in that a fixing device (7) for gluing, welding, sewing or attaching profiles of the sheets is stationary, and a holding device for retaining the sheet or the stacked sheets can be moved back and forth across the longitudinal axis of the fixing device (7) and sideways parallel to the longitudinal axis of the fixing device
- 25 (7).
24. Use of a dividing element produced according to the processes of any of claims 19 to 22 for transporting or storing heavy, sharp-edged or moist or liquid-exuding unit loads or for transporting or storing unit loads in liquids or under extremely moist external conditions.
- 30 25. Use of a dividing element produced according to the processes of any of claims 19 to 22 for transporting or storing varnished items or other articles with sensitive surfaces, in particular car parts, glass items such as e.g. perfume containers, in particular in the transportation or storage of unit loads in liquids or under extremely moist external conditions.
- 35

List of reference numbers:

	1	Dividing element
5	2	Transport container
	3	Sheet
	4	Contact surface
	5	Chamber
	6	Fixing element
10	7	Fixing device
	8	Roll
	9	Velcro strip fastener loop surface
	10	Velcro strip fastener hook surface
	11	Marking
15	12	Inside wall of the transport container